

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 178 AND GATEWAY VILLAGE DRIVE IN ANNE ARUNDEL COUNTY. MD 178 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH AN EXCLUSIVE-PERMISSIVE LEFT TURN PHASE FOR N.B. MD 178 AND A RIGHT TURN OVERLAP FOR THE GATEWAY VILLAGE APPROACH. A CONCURRENT PEDESTRIAN PHASE FOR THE GATEWAY VILLAGE DRIVE APPROACH WILL ALSO BE PROVIDED. THE SIDE ROAD APPROACH WILL OPERATE WITH EXCLUSIVE MOVEMENT NEMA PHASE 4.

APS NOTES

TO CROSS GATEWAY VILLAGE DRIVE

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS GATEWAY VILLAGE AT GENERALS HIGHWAY"
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE

SPECIAL NOTE

THIS PROJECT WILL ALSO INCLUDE THE REMOVAL OF THE EXISTING TRAFFIC SIGNAL AT MD 178 AND SAM'S CLUB ENTRANCE. REMOVAL OF EXISTING UPON COMPLETION OF THE NEW SIGNAL.

CONTACT PERSONS FOR DISTRICT 5 ARE AS FOLLOWS:

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(410) 841-1003

MR. JOHN MAYS
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
(410) 841-1002

MR. JOE HORTY
ASSISTANT DISTRICT ENGINEER - UTILITIES
(410) 841-1005

CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

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CHIEF, TRAFFIC OPERATIONS
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MR. ROBERT SNYDER
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(410) 787-7668

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EQUIPMENT LIST "A"

A. APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

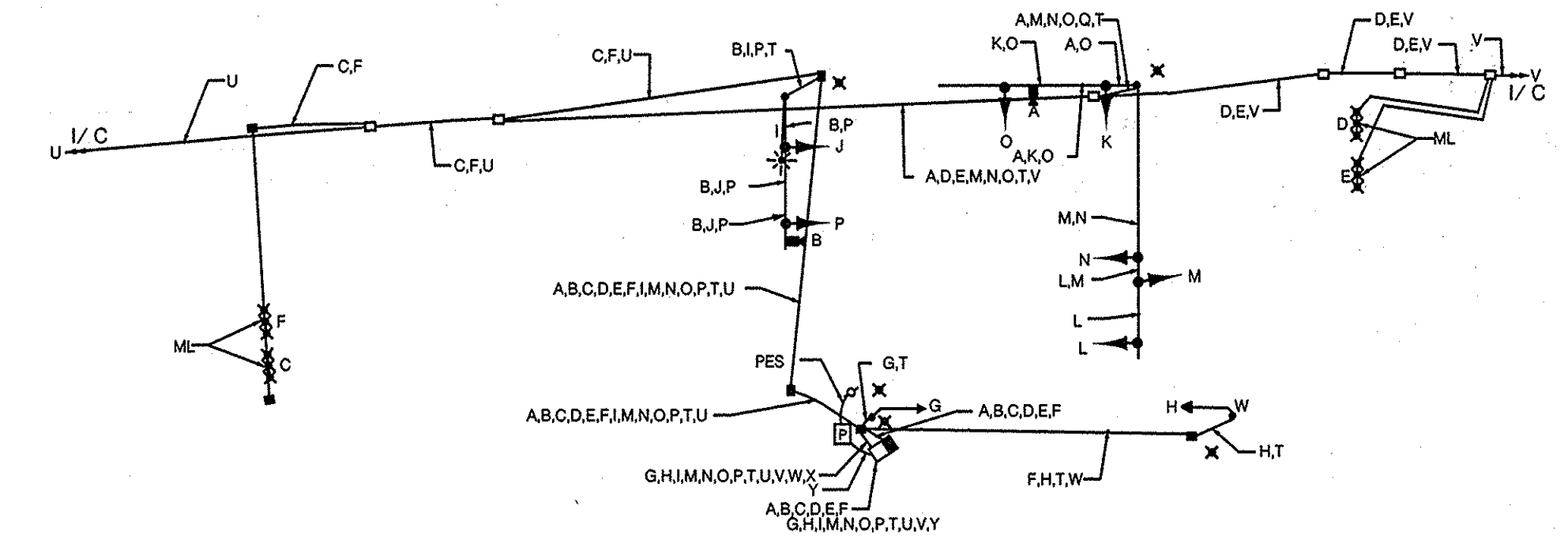
QUANTITY	DESCRIPTION
1 LS	MAINTENANCE OF TRAFFIC
1 LS	MOBILIZATION
5 CY	TEST PIT EXCAVATION
165 LF	12 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
110 LF	24 IN. WHITE HEAT APPLIED PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
1 LS	SELECTIVE TREE TRIMMING
1 LS	REMOVE AND DISPOSE OF EXISTING MATERIAL AND EQUIPMENT
12 CY	CONCRETE FOR SIGNAL FOUNDATION
1 EA	CUT, CLEAN, AND CAP TRAFFIC SIGNAL STRUCTURE
3 EA	8 INCH LED VEHICLE SIGNAL HEAD SECTION
24 EA	12 INCH LED VEHICLE SIGNAL HEAD SECTION
2 EA	16 INCH LED PEDESTRIAN COUNTDOWN SIGNAL HEAD SECTION
1 EA	15 FT. LIGHTING ARM BRACKET ON SIGNAL POLE
1 EA	250 WATT HPSV LUMINAIRE WITH PHOTOCCELL
2 EA	AUDIBLE-TACTILE PEDESTRIAN PUSHBUTTON AND SIGN
2 EA	MICRO-LOOP PROBE SET WITH 1000 FT. LEAD IN CABLE
2 EA	NON-INVASIVE PROBE WITH 100 FT. LEAD IN CABLE
1 EA	27 FT. STEEL POLE WITH 38 FT. SINGLE MAST ARM
1 EA	27 FT. STEEL POLE WITH TWIN 50 FT. / 70 FT. MAST ARMS
2 EA	10 FT. STEEL PEDESTAL POLE AND BREAKAWAY BASE
1 EA	VIDEO DETECTION CAMERA WITH 300 FT. LEAD-IN CABLE
1 EA	VIDEO DETECTION CAMERA WITH 400 FT. LEAD-IN CABLE
6 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
1 EA	METERED SERVICE PEDESTAL EMBEDDED
20 LF	1 IN. DETECTOR SLEEVE, FLEXIBLE LIQUID-TIGHT CONDUIT
200 LF	2 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
200 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
70 LF	3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
60 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED
370 LF	4 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED
710 LF	NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
50 LF	ELECTRICAL CABLE 1 - CONDUCTOR NO. 4 AWG - THHN / THWN
250 LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO 12 AWG)
150 LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO 14 AWG)
240 LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO 14 AWG)
1860 LF	ELECTRICAL CABLE 7 - CONDUCTOR (NO 14 AWG)
8 EA	3 / 4 IN. x 10 FT. GROUND ROD
80 LF	SAW CUT FOR SIGNAL
1 EA	CONTROLLER AND CABINET - BASE MOUNT
1 EA	FOUR-CHANNEL LOOP DETECTOR AMPLIFIER
1 EA	2-WIRE CONTROL UNIT FOR APS EQUIPMENT
1 EA	FIBER OPTIC I/O PANEL
1 EA	FIBER OPTIC REPEATER MODEM
1 EA	FIBER OPTIC TELEMETRY MODULE
1 EA	FIBER OPTIC MODEM CABLE
1210 LF	FIBER OPTIC TELEMETRY CABLE
1 EA	TELEMETRY INTERFACE CABLE
1210 LF	TRACER WIRE
2 EA	D3-2 DUAL FACE SIGN (VAR. X 16")
2 EA	R1-2 SIGN (36" X 36")
2 EA	R3-2 SIGN (24" X 24") MAST ARM MOUNT
2 EA	R3-4(L) SIGN (30" X 36") MAST ARM MOUNT
2 EA	R5-1 SIGN (30" X 30") GROUND MOUNT
1 EA	M85-1 SIGN (24" X 78") MAST ARM MOUNT
2560 LF	PULL-BACK AND RE-INSTALL EXISTING CABLE

EQUIPMENT LIST "C"

C. SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

WIRING DIAGRAM



WIRING KEY

A-B	VIDEO DETECTION CABLE	U	PROPOSED TELEMETRY INTERFACE CABLE, FIBER OPTIC MODEM CABLE, FIBER OPTIC TELEMETRY CABLE
C-F	MICRO-LOOP PROBE	V	EXISTING TELEMETRY INTERFACE CABLE, FIBER OPTIC MODEM CABLE, FIBER OPTIC TELEMETRY CABLE
G-H	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	W-X	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
I	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)	PES	PROPOSED UNDERGROUND ELECTRICAL SERVICE
J-L	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	ML	MICRO-LOOP PROBE
M-P	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	X	GROUND ROD
T	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)	I/C	INTERCONNECT CABLE
		Y	1 CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.) 3-WIRE

PHASING CHART

	1	2	3	4	5	6	7	8	9
PHASE 1 & 6	G	G	G	R	R	R	R	DW	DW
1 & 6 CHANGE	G	G	G	R	R	R	R	DW	DW
PHASE 2 & 6	G	G	G	G	G	R	R	WK	WK
PED. CLEAR	G	G	G	G	G	R	R	FLDW	FLDW
2 & 6 CHANGE	Y	Y	Y	Y	Y	R	R	DW	DW
PHASE 4	R	R	R	R	R	G	G	DW	DW
4 CHANGE	R	R	R	R	R	Y	Y	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FL/R	FL/R	DARK	DARK

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STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN
MD 178 AND GATEWAY VILLAGE DRIVE
(ANNAPOLIS, MD)

SCALE NONE DATE 10-10-8 CONTRACT NO. BW998M82

DESIGNED BY M.HOWELL COUNTY ANNE ARUNDEL
DRAWN BY T.ZAYDEL LOGMILE 02017800.16
CHECKED BY K.SCHMID T.I.M.S. NO. F 921
F.A.P. NO. NA TOD NO.

DRAWING NO. TS-4278 - GI SHEET NO. 2 OF 4

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